United States
Olympic
& Paralympic
Museum

TEACHER'S GUIDE
GRADES 3-5

United States
Olympic
& Paralympic
Museum

Content created by TurnKey Education, Inc. for USOPM. TurnKey Education, Inc.: www.turnkeyeducation.net

TABLE OF CONTENTS

United States Olympic & Paralympic Museum

United States
Olympic
& Paralympic
Museum

STARTING GATE

United States
Olympic
& Paralympic
Museum

WELCOME TO THE UNITED STATES OLYMPIC & PARALYMPIC MUSEUM

Every two years the Olympic and Paralympic Games give the world a much-needed reminder of the values and ideals that unite us all. The Games promote peace, harmony and equality and uphold the principles of friendship, fair play, and respect. Teachers, you are about to lead your students through a story of achievement at the highest levels of international competition. You will be inspired by the personal stories of United States Olympians and Paralympians who have harnessed their passion to reach the pinnacle of sport.

Follow their journey to excellence and show your students first-hand what can be accomplished through skill, focus, determination, and tireless effort. The United States Olympic & Paralympic Museum (USOPM) is highly immersive and fully engaging. An experience that blends historic artifacts with state-of-the-art multimedia exhibits will captivate your students from start to finish. From the Opening Ceremonies to the medal podiums, your class will be part of Team USA like never before.

The United States Olympic & Paralympic Hall of Fame, established in 1979, celebrates the achievements of Team USA's premier athletes and teams as well as the impact of legendary coaches and special contributors. Since the first Hall of Fame class was inducted in 1983, nearly 150 individuals and teams have been honored for their contributions to the American Olympic and Paralympic movements. Beginning with a new induction class in 2019, nominations and awards take place every two years. The United States Olympic & Paralympic Hall of Fame, now housed at USOPM, is one of the first major sports hall of fames to incorporate fan voting into its selection process. A field trip to see the Hall of Fame and USOPM provides your students with a vivid look into the rich tradition and excitement of the Olympic and Paralympic Games.

Using the topic of elite sports, along with the interactive experiences at the museum itself, you can connect the educational themes of the exhibition to your national and local STEAM content requirements. This Teacher's Guide features a curriculum designed to offer a memorable learning experience that is interdisciplinary and applicable across several grade levels and areas of study. With Team USA on your side, you are sure to score gold with your students throughout the school year. Now, let's ignite the flame and start the Games!

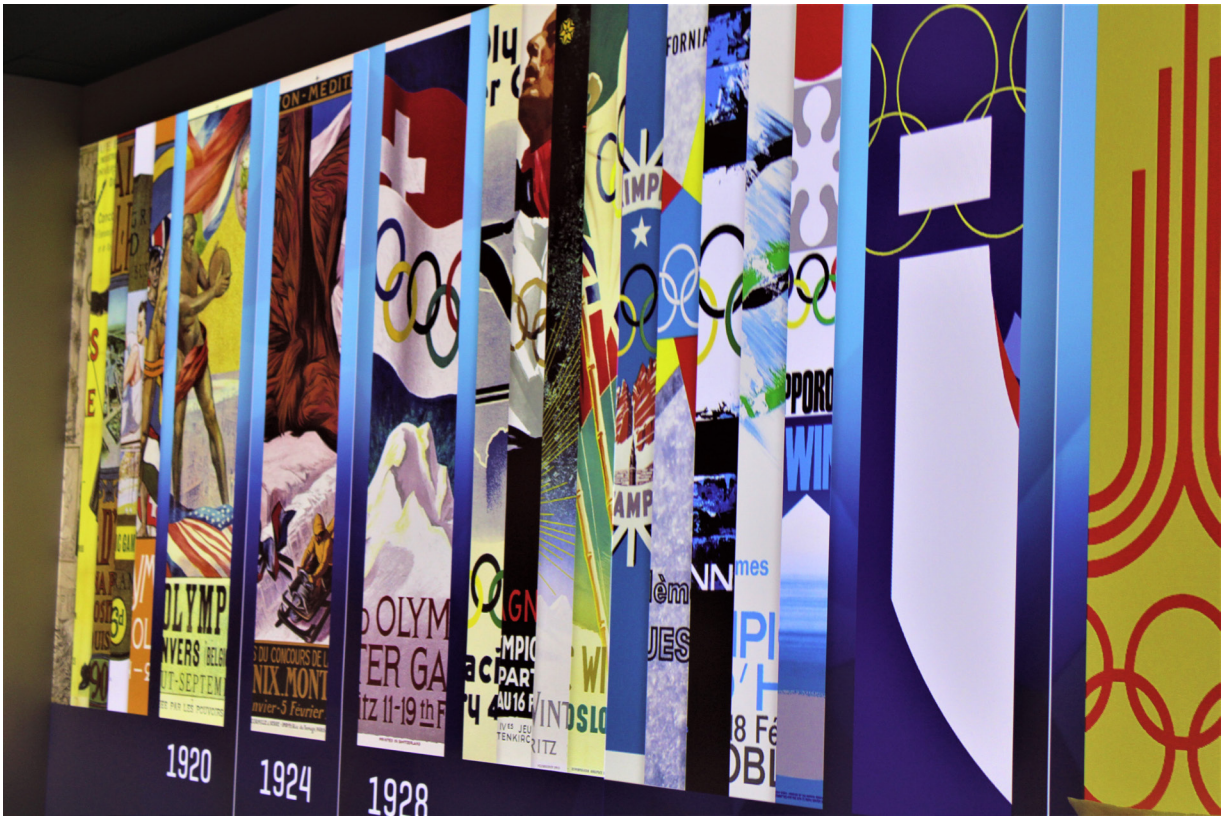
What to Expect on Your Field Trip

As you enter the United States Olympic & Paralympic Museum (USOPM), you will immediately notice the moving masterpieces painted by LeRoy Neiman. Moving, because they are beautiful to see and they are literally in a bespoke installation film of contemporary athletes. A stunning showcase of the intersection between sports and art, this is the first of many "WOW" moments on your field trip.

On the Lobby level of the museum, you can engage virtually with Olympic and Paralympic Hall of Famers. Students can search inductee profiles by name, year, or sport to view their remarkable highlights and impressive achievements. Even your elevator ride to the upper floors of the museum is memorable! It's an audio exhibit to welcome you as pass by images of athletes and Pike's Peak, America's own Mount Olympus. As you exit, you see and hear the moment the Olympic torch is lit, symbolizing the start of your official journey to celebrate the history, achievements, and future of the Games. Another "WOW!"

To the ancient Greeks, fire symbolized energy, courage, and passion. It's fitting then that a torch and flame became among the most vivid and lasting symbols of the Olympic and Paralympic Games. Torches from the Summer and Winter Games are proudly displayed at USOPM. Your class will explore touchscreens with images and content related to each of the torches. They will discover relay route maps, unique design features, and fun facts about that year's Games.

Everything about the Olympics is big—especially its values and ideals. The Games bring the world together and reflect a vision of peace, equality, excellence, and joy in participation. Students will hear interviews from athletes and coaches about the importance of these values and how they are evident at the Games. Get to know these competitors better (and have some fun!) as you measure your feet against those of some well-known Olympic and Paralympic stars and even learn what athletes in different sports eat daily. Speaking of big, a map of the United



States dominates an interactive wall and allows your students to access details about Team USA athletes including their names, hometowns, birthdays, medal counts, competitions and more. Find out how many gold medal winners share your name or who competed at the first Olympics you remember watching.

In a high energy activity space, your class will be introduced to the training required to achieve the standards of Olympians and Paralympians at six interactive stops. Some activities will even include a performance analysis by a featured athlete dropped into your digital locker. "Speed" includes a running simulator. "Aim" demonstrates a virtual archery bow and target. "Balance" shows a first-person view at the start of the Skeleton track. "Strategy" pauses a Sled Hockey game for you to determine what the player should do next. "Mental Visualization" requires memorizing a sequence of maneuvers to get to the bottom of a ski hill. "Reaction" uses motion tracking to test your reflexes in Goalball, a sport played by visually impaired athletes. Plan to spend some extra time here!

With new insight into the commitment and dedication athletes need at the highest level of competition, you are ready for "The Lab." Your class will discover the impact of innovation and technology on sports equipment, from the bottom of a runner's track shoe and the top of a decathlete's cooling hood to the devices that time their races to one-millionth of a second. Students can also interact with a life-size model of an athlete as they study the scientific, and dangerous, effects of various kinds of doping on the body.

After training your body and your mind, it's time to walk through the tunnel and into the stadium as part of Team USA. Seamlessly moving from this unforgettable Parade of Nations, your group will be completely immersed in footage from the most recent Games along with flashbacks from historic Opening Ceremonies of Games hosted by the United States. "WOW!"

More amazement awaits on the middle level of the museum. Be sure to look up and down and all around at the full range of Olympic and Paralympic sports contested in both the Summer and Winter Games. Interactive walls allow students to select a sport to view medal winners, related photos, and video. Individual stories introduce inspiring athletes on a very personal level. Have you ever wanted to talk directly to an Olympian or Paralympian? What would you want to know? In "Ask the Athlete" you get to have a personalized conversation with cross-country skier Kikkan Randall, a 2018 gold medal champion and Matt Scott, a two-time Paralympic medalist in wheelchair basketball. Truly memorable.

A timeline of every year of the Summer and Winter Olympics and Paralympics presents the chronology of the Games. Students can interact with content ranging from political and social commentary to the distinct cultural background of each host city of the Games. Don't miss the historic artifacts from 1936, 1968, and 1972 on display. Learn more about how the Olympics and Paralympics have become part of popular culture - including fashion, music, headline news, TV shows, and movies. Known as the "Breakfast of Champions," look for a floor-to-ceiling collection of iconic Wheaties® cereal boxes featuring Team USA athletes.

These entertaining moments take a turn as you investigate the terrible events of the 1972 Summer Games in Munich when 11 Israeli team members—five athletes and six coaches—were murdered by Palestinian terrorists. Audio and video archives from the 16-hour television broadcast of this dark day in Olympic history take your class back to the moments this tragedy unfolded in front of the world and led to the death of David Berger, the only Israeli-American victim.

As you return to the Lobby and enter the Medal Experience, you are immediately surrounded by hundreds of digital Olympic and Paralympic medals cascading from the ceiling to the floor, including a montage of iconic podium moments. A final "WOW" moment until you return to USOPM on your next field trip. Every year, nearly half a million athletes compete at the collegiate level in America. Hundreds of thousands more participate in other local and regional competitions. Only a handful are selected to represent America at the Olympic and Paralympic Games. Joining the ranks of these athletes and earning the chance to compete at an international level requires perseverance, dedication and incredible effort. Do you have any future members of Team USA in your class?

Using This Teacher's Guide

As a companion to your experience at the United States Olympic & Paralympic Museum, this comprehensive Teacher's Guide for Elementary School complements your classroom instruction and makes the most of your school field trip. It contains original, assessable, STEAM-related classroom lesson plans featuring dynamic activities and assignments for students in grades three through five. There are also Teacher's Guides for Middle School and High School. Each of these Guides is created to be flexible. Use them to best meet the needs and capabilities of your class. You know your students better than anyone else.

Following this Introduction, you will find **Tour of Champions**, an on-site activity for students to complete during their field trip to USOPM. It will help make the most of their time at the museum, while highlighting some of the relevant content they might not otherwise see or read.

The next section, **Journey to Excellence**, contains four interdisciplinary classroom lesson plans and project-based inquires addressing national and local curriculum standards. The lesson plans begin with background and instruction pages for teachers that include answer keys and a list of content areas addressed by the activities. The lessons continue with ready-to-copy Student Activity pages that center on key STEAM topics featured on your tour of USOPM. With a scaffolding approach, multiple parts of each lesson provide a variety of instructional techniques to move your students progressively toward a stronger understanding of the content.

The first lesson plan, **Traveling Torches**, gives your students practice with measurement, fractions, and unit conversion based on the lengths of five Olympic torches from years when the United States hosted the world. In addition, they will complete a design challenge to create an Olympic or Paralympic torch that represents their hometown.

In the second lesson plan, **The Value of Math**, students will measure elapsed time, work with decimals, and calculate length, perimeter, and area based on facts about Team USA and the Olympic and Paralympic Games. They will also analyze data to track how much the Olympic and Paralympic movements have spread around the world.

For the third lesson, **Team USA Hometown Heroes**, students will focus on Social Studies and Language Arts to research Olympic or Paralympic athletes with ties to their hometown or other locations that have personal meaning to them. Then, they will complete a biography of their selected athlete to create a colorful "one-pager" for display.

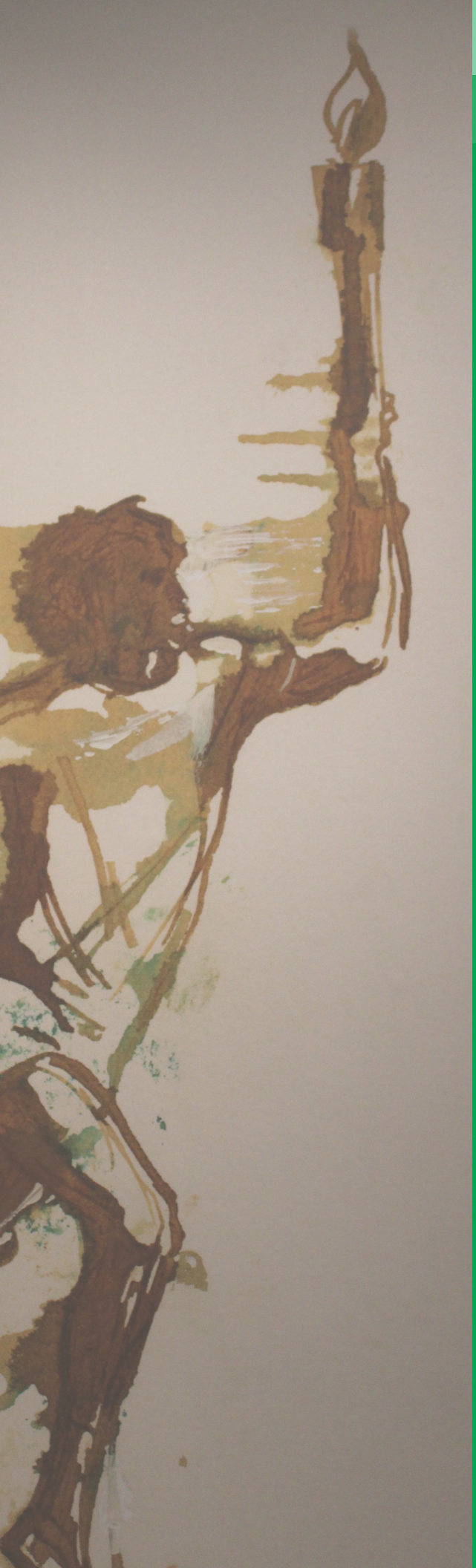
Your students will begin the fourth lesson plan, **Winter Games: Feeling the Heat**, by reviewing earth science terms about climate and weather then conducting an experiment about green-house gasses. They will conclude by designing a climate change solution to make sure we always have a way to play the Winter Olympic and Paralympic Games.

Under **The Extra Mile**, you will find additional resources for you to use in your classroom as you see fit. Here, a **Timeline of the Modern Olympic and Paralympic Games** can serve as a reference for historical geography, study aids, and writing prompts. Information found in **Team USA Olympic and Paralympic Hall of Fame Inductees** can be used to generate inquiry-based research projects across the curriculum. The next section, **Olympic Games**, contains themed puzzles to assign for extra credit or earmark for your bus ride to and from USOPM.

We know how important it is to be able to justify field trips and document how instructional time is spent outside of your classroom. In **Beyond the Medal**, this Teacher's Guide is directly correlated to the Common Core State Standards for Mathematics and English Language Arts along with the Next Generation Science Standards, C3 Framework for Social Studies State Standards, National Health Education Standards, and National Core Arts Standards. You will also find connections to the Colorado Academic Standards. These correlations are organized by content and grade level. You can readily see how they fit into your required curriculum making it easier than ever to connect a field trip to USOPM with your classroom instruction.

All of these education resources can be used before your visit to USOPM to prepare students for the teachable moments found throughout the museum as well as when you return to school to further explore connections between the educational themes of the exhibition and your classroom STEAM instruction. We look forward to inspiring you and your students year after year at the United States Olympic & Paralympic Museum.

United States
Olympic
& Paralympic
Museum



United States
Olympic
& Paralympic
Museum

TOUR OF CHAMPIONS

A Student Field Trip Activity

Tour of Champions: A Student Field Trip Activity

TEACHER INSTRUCTIONS

This activity is for your students to complete during their field trip to the United States Olympic & Paralympic Museum. It will help them make the most of their time by highlighting content they might not otherwise see or read. In each area of the museum, your students direct their own learning by choosing which questions to answer. Each section indicates how many should be answered from that group. You can also assign the number of questions that best fits the skill level and interests of your students.

During your preparations for the field trip, advise your students to read through the questions carefully ahead of time, perhaps on the bus on the way over. This way, they will know what to look for once they are inside the museum. Remind them to look at the text panels, photo captions, and interactive content. Upon returning to school, have students share and compare their answers to the questions they chose. For a true gold medal experience, work in groups or as a whole class to complete all the questions!

ANSWER KEY

Hall of Fame

1. Answers will vary
2. Answers will vary

Journey to Excellence

1. The city of Olympia, where the ancient Olympics were held
2. The Heraean Games, named for the Goddess Hera
3. The continents of Africa, Europe, Asia, the Americas, and Oceania
4. Pierre de Coubertin
5. Golf. 1900. Paris.
6. Answers will vary
7. Olympics: excellence, respect, friendship.
8. Paralympics: determination, inspiration, courage, equality
9. 1960
10. The Lakeshore Foundation in Birmingham, Alabama
11. Answers will vary
12. Title IX legislation put women's sports on an equal footing with men's by prohibiting discrimination based on sex in any education program or activity that is federally funded

Training Stops and The Lab

1. Choices: Jesse Owens, Carmelia Jeter, Gianfranco Iannotta, Jean Driscoll, David Brown, Marla Runyan, April Holmes, Hunter Woodall
2. Answers will vary
3. Rico Roman
4. Choices: Coach, Sports Sciences, Sports Psychologist, Sports Physiologist, Sports Dietetics, Sports Technology, Sports Medicine, Strength & Conditioning, Coordinator of Athlete Services

5. Choices: Nike Waffle Sole (patterned grips provide greater traction and comfort). Snowboard ('frostbite" edges protrude and provide extra grip on firmer snow and ice. Carbon layer provides more stability and top speeds). Swimming suit (triple-fabric construction enhances compression and flexibility; micro vortices and updated waistband reduce drag). Goal ball (natural and synthetic rubber, knobbed surface for enhanced grip). Clap skate (hinge allows back of boot to flex while skate blade stays on the ice). Smart glasses (world's smallest optical module offers cyclists hi-res display that blends with field of view). Blind cap (small vibrating sensors in the cap alert visually impaired swimmers when it is time to execute flip turn). Cooling hood (inner layers retain cool water, structural frame keeps cold in place and close to face). Skis (Atomic Redster skis with pre-stressed servotec rods and elastomer make them more agile in turns and stable on straightaways, ultra-titanium powered laminate provides edge stability). Omega Quantum Timers (quantum technology provides for accuracy to 1/1000th of a second every 1000 seconds).
6. They play by sound and feel, throwing and blocking a ball with bells inside
7. Choices: Pat Summit, Basketball. James Councilman, Swimming. Herb Brooks, Ice Hockey. Skogen Sprang, Freestyle Skiing. Ed Temple, Track & Field. Teri McKeever, Track & Field. Adam Bleakney, Paralympic Track & Field. James Gumber, Paralympic Rugby. Eileen Carey, Nordic Skiing. Karch Kiraly, Volleyball. Mike Krzyewski, Basketball. Rosalyn Bryant Clark, Paralympic Track
8. Twenty pounds of meat, twenty pounds of bread, three pitchers of wine
9. Answers will vary

Summer and Winter Games

1. Michael Phelps
2. Answers will vary
3. Answers will vary
4. Answers will vary
5. Answers will vary
6. Wheelchair Tennis
7. It was completely unexpected. The U.S. team, a bunch of college kids, was beaten by the Soviets, 10-3, just 12 days earlier. In the semifinal, a late goal by team captain Mike Eruzione pushed the U.S. past the four-time defending Olympic champions. Then, two days later the U.S. beat Finland for the gold medal.
8. 8 medals. Apolo Anton Ohno, Short Track Speedskating. Colorado Springs Olympic Training Center.

The World Watches

1. Answers will vary
2. Answers will vary
3. Jesse Owens, 1936
4. September 5, 1972
5. Denver, 1976 Summer Games, economic and environmental concerns
6. The Olympic Theme written by John Williams
7. Answers will vary
8. Gabby Douglas

NAME:

CLASS:

DATE:

Tour of Champions

STUDENT FIELD TRIP ACTIVITY

Choose the questions you want to answer for each area in the United States Olympic & Paralympic Museum. Look closely at the text panels, photo captions, and interactives. Please do not lean on the glass cases or touchscreens to write. For a true gold medal experience, work in groups or as a whole class to complete all questions!

Hall of Fame: Choose 1.

1. Name one Olympian and one Paralympian in the Hall of Fame.

2. Name one man and one woman in the Hall of Fame.

Journey to Excellence: Choose 4.

1. What is the name of Colorado Springs' sister city in Greece?

2. What was the name of the all-female athletic competition held in Ancient Greece?

3. What do the colors of the Olympics rings represent?

4. Who is the founder of the modern Olympic games?

5. Margaret Abbott became the first female Olympic champion in which sport? Which year? In which host city?

6. Select an Olympic torch from the touchscreen. Write the year, host city, and one fact about that year's Games.

NAME:

CLASS:

DATE:

7. List the three Olympic core values.

8. List the four Paralympic core values.

9. When did the Paralympic Games officially begin?

10. Where is the training home of USA wheelchair rugby? Name the city and the state.

11. On the interactive map of the United States, find the name an Olympian or Paralympian who shares your birthday.

12. Why is Title IX legislation important?

Training Stops and The Lab: Choose 3.

1. Which athlete did you race against in the running simulator?

2. How many penalties did you get in your skeleton run?

3. Which Paralympian spoke about strategy in their sport?

4. Name three important members of an Olympic/Paralympic training team.

5. Select one of the pieces of sports equipment on display. Explain its innovative technology.

6. How do visually impaired athletes play goalball?

7. Name two Olympic/Paralympic coaches and their sports.

NAME:

CLASS:

DATE:

8. What was the daily diet of Milo of Croton, who won six Olympic wrestling titles in the 6th century B.C.?

9. Name one way doping hurts the body.

Summer and Winter Games: Choose 3.

1. Who said, "You can't put a limit on anything. The more you dream, the farther you get."

2. Name 3 Summer sports.

3. Name 3 Winter Sports.

4. Choose one Olympic and Paralympic Summer sport and name a Team USA medalist for each one.

5. Choose an Olympic and Paralympic Winter sport and name a Team USA medalist for each one.

6. Which Paralympic summer sport did Brad Parks invent?

7. Why was the U.S. men's ice hockey team's win over the U.S.S.R. at the 1980 Lake Placid Games named the "Miracle on Ice?"

8. Which athlete has more medals than any U.S. Winter Olympian? How many? Which sport? BONUS: Where did he train?

The World Watches: Choose 3.

1. What question did you ask Kikkan Randall or Matt Scott? What was the answer?

2. Pick a city from the interactive timeline and write one interesting fact about it.

NAME:

CLASS:

DATE:

3. Who said "The road to the Olympics leads to no city, no country. It goes far beyond New York or Moscow, ancient Greece or Nazi Germany…[and] leads—in the end—to the best within us." In what year?

4. What is the date of the Munich Massacre?

5. Which U.S. city is the only one to ever win and then reject an Olympic bid? What year and why?

6. What is the most recognizable music in sports? Who wrote it?

7. Choose a Team USA athlete on a box of Wheaties® cereal. Who is it and what is their sport?

8. Which gold-medal winning gymnast inspired a Barbie doll?

United States
Olympic
& Paralympic
Museum

JOURNEY TO EXCELLENCE

STEAM Classroom Activities and
Project-Based Inquiries

Lesson Plan 1
Traveling Torches

TEACHER INSTRUCTIONS & KEY

Mathematics, Fine Arts
Measurement, Fractions, Unit Conversion, Visual Arts

As you step out of the elevator at the start of your field trip to the United States Olympic & Paralympic Museum, you and your students will immediately experience the thrilling moment when the torch is lit - the symbolic start of the countdown to the Games. To begin its journey, this flame is traditionally ignited in Olympia, Greece, home of the first Olympic Games. Olympic and Paralympic torches have used some interesting transportation for this journey. In 1976, a signal sent by satellite from Europe lit the torch in Canada. In addition to ships, airplanes, cars, helicopters, trains, bikes, runners, and horses, a canoe, a camel, and even a scuba diver have carried a torch. For the last leg of its relay, the torch arrives at the stadium with great fanfare at the Opening Ceremonies.

Torches from the Summer and Winter Olympic and Paralympic Games are proudly displayed at USOPM. Your class will explore touchscreens that display images and content related to each of these torches. Students will discover relay route maps, unique design features, and fun facts about that year's Games.

Every torch is a distinctive symbol for its Games. Look carefully for those from the Summer Games of 1984 and 1996, and Winter Games of 1960, 1980, and 2002. These were years when the United States hosted the world. In this lesson plan, your students will practice their measurement and conversion skills using the lengths of these specific torches in Part 1.

In the years before the Olympic and Paralympic Games, organizers in the host city are responsible for designing and making their torch. Often, a competition is held with thousands of entries. If your hometown were hosting the next Olympics and Paralympics, what kind of torch would your students create? They will have a chance to do just that in Part 2. Students can complete this design challenge in groups or individually.

ANSWER KEY

Part 1

1. California, 2/5
2. 1960, 1984, 1980, 1996, 2002
3. (a.) Squaw Valley (b.) Salt Lake City
4. 1996/Atlanta and 2002/Salt Lake City; 1.5 cm
5. Answers will vary. Confirm lengths. 1980 = 72.5 cm, 1984 = 58.5

mm	cm	m
485	48.5	0.485
725	72.5	0.725
585	58.5	0.585
820	82	0.820
835	83.5	0.835

Part 2: Assess for completeness of the 20 possible points.

- How long is it? (1 point)
- How is the fuel contained safely? (1 point)
- What colors does it have? Why? (2 points)
- From what will it be made? Why? (2 points)
- How are local geography and natural resources shown? (2 points)
- What part of the area's history is included? How? (2 points)
- How is your community's culture represented? (1 point)
- Attach a sketch of your design on separate paper. (9 points)

NAME:

CLASS:

DATE:

Traveling Torches

STUDENT ACTIVITY

Terms to Know:
aerodynamic, aluminum, cauldron, convert, host, landscape, relay, texture

The countdown to the Olympic and Paralympic Games begins when the torch is lit months before the Opening Ceremonies. Its long journey across the world usually starts in Olympia, Greece, home of the first Olympic Games, and ends at the site of the Games about to be played. The flame is passed from person to person and torch to torch.

These torches have made some interesting trips! In 1976, a satellite signal from Europe lit a torch in Canada. Besides ships, airplanes, cars, helicopters, trains, bikes, runners, and horses, a canoe, a camel, and even a scuba diver have carried a torch. For the last leg of its journey, the torch arrives at the stadium where it is used to light a huge cauldron to mark the opening of the Games.

You will see torches from the Summer and Winter Olympic and Paralympic Games during your field trip to the United States Olympic & Paralympic Museum. You can explore pictures, stories, route maps, unique designs, and fun facts about the torches you see. Every torch is a special symbol for its Games. Look carefully for those from the Summer Games of 1984 and 1996, and Winter Games of 1960, 1980, and 2002. These were years when the Games were played in the United States.

NAME:

CLASS:

DATE:

Part 1

The first time there was an Olympic torch relay in the U.S. was in 1960. That year, the Winter Games were in Squaw Valley, California. This chart lists each time Team USA has been the host team, after the torch relays began, and the length of the torch that year.

Year	Games	Host City	State	Torch Length
1960	Winter	Squaw Valley	California	48.5 cm
1980	Winter	Lake Placid	New York	72.5 cm
1984	Summer	Los Angeles	California	58.5 cm
1996	Summer	Atlanta	Georgia	82 cm
2002	Winter	Salt Lake City	Utah	83.5 cm

Use the information in the chart to answer these questions.

1. Which state has had both Summer and Winter Games? Write a fraction that shows how many of the Games in the chart were in this state.

_____

2. Write the years for the torches in order of their lengths, from shortest to tallest.

_____

3. (a.) Which city had the shortest torch? (b.) Which city had the longest torch?

_____

4. Which two torches are closest in length? What is the difference between them?

_____

5. Use a ruler or meter stick to measure objects in your classroom. Find objects that are the same lengths as the torch from 1980 and 1984. What object did you find for the length of each torch?

NAME:

CLASS:

DATE:

1980: _____

1984: _____

6. Convert the torch lengths in centimeters (cm) to millimeters (mm) and meters (m).

mm	cm	m
485	48.5	0.485
	72.5	
	58.5	
	82	
	83.5	

Part 2

The torch used in the 1996 Atlanta Games was made with pecan tree wood donated by Georgia farmers. In Salt Lake City, the colors and textures of the 2002 torch represented ice and the landscape of Utah. If your hometown hosted the next Olympics and Paralympics, what would the torch look like? How would you design it? What parts of the local geography, history, and culture would you include? What symbols would you add? Your class is about to have its own design challenge for a torch to represent your community.

Organizers in each host city design and make the torch. Often, a competition is held to find the one that looks and works the best. The materials used to make the torch are important, too. The torch carries a flame, so your design needs a way to hold the fuel that keeps it lit, but does not burn the person holding it. The torches are carried over long distances, so they cannot be too heavy.

Use the questions below to guide you through the design process for your home-town torch. You will present its design to the class, which will vote on their favorite.

How long is it? (1 point)

_____

How is the fuel contained safely? (1 point)

_____

NAME:

CLASS:

DATE:

What colors will it have? Why? (2 points)

What will it be made from? Why? (2 points)

How are the local geography and natural resources shown? (2 points)

What part of the area's history included? How? (2 points)

How is your community's culture represented? (1 point)

Attach a sketch of your design on separate paper. (9 points)

BONUS! *Make a model of your torch using classroom craft materials.*

Lesson Plan 2
The Value of Math

TEACHER INSTRUCTIONS & KEY

Mathematics, Social Studies
Measurement & Data, Decimals, Geography

The Olympics and Paralympics are about respect, friendship, determination, and courage. But they are also about math---and a lot of it! From counting how many athletes are expected and finding places for all of them to sleep to timing some of the fastest humans on Earth, math matters at the Games.

The difference between winning a gold medal in first place and silver in second might be thousandths of a second. Sometimes less is more when it comes to race times in running, skiing, or swimming. Sometimes more IS more! Weight lighters try to lift as much as they can. Snowboarders, ice skaters, and gymnasts all want high scores. Even the geometry of the playing field is important. Athletes need to know that the size of their practice pool or court is the same as the one in competition.

Natural ability is important for medal-winning speed, but nothing beats training for the power and strength that gets you to the finish line first. From sprinters to wheelchair marathoners, swimmers to skaters, each athlete has a unique speed training plan. On your field trip to the United States Olympic & Paralympic Museum, students will hear from track and field medalist and world record holder Carmelita "The Jet" Jeter about her own training routine. Then, they can choose from eight Team USA athletes to race against in a running simulator and have their individual performance reviewed by Carmelita herself. Math in action!

Math also shows how much the Games have spread around the world. The Olympics and Paralympics bring thousands of athletes together from every continent except Antarctica. The first Summer Olympics featured only 14 nations participating in 42 sporting events. Now athletes represent over 200 countries in over 300 events!

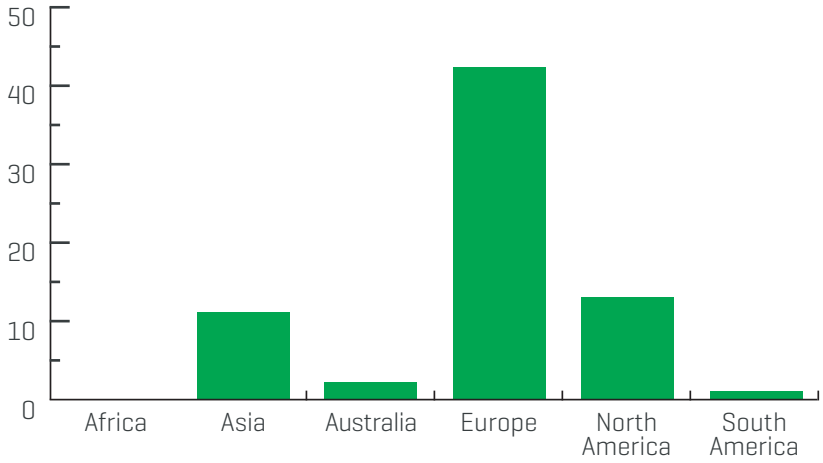
In this lesson plan, your students will see the importance of measurements and data collection in valuing Olympic and Paralympic history.

ANSWER KEY

Part 1

1. 2.16 seconds
2. 0.08 seconds
3. 24 years
4. 2, 4, and 8 lengths
5. 0.21 seconds
6. Rectangle
7. p = 32 m, a = 60 m^2
8. p = 54 m, a = 162 m^2
9. Answers will vary and may include the fact that the Paralympians sit on the floor and cannot cover as much area.
10. For beach volleyball, p = 48 m (16 m more than Paralympic and 6 m less than Olympic) and a = 128 m^2 (68 m^2 more than Paralympic and 34 m^2 less than Olympic). It is between the two but closer to the size of an Olympic indoor court.

Part 2



1. Europe
2. Less, others combined total 28 and Europe is 42.
3. 13
4. Asia
5. Africa. Answers will vary and may include that they did not want to host them or that the Games are too expensive.
6. Answers will vary.
7. Answers will vary.
8. Answers will vary. There are no indigenous human populations there, only temporary settlements of scientists from different countries.

NAME:

CLASS:

DATE:

The Value of Math

STUDENT ACTIVITY

Terms to Know:
area, continent, data, elapsed, geometry, host, inhabited, marathoner, perimeter, sprinter

The Olympics and Paralympics are about respect, friendship, determination, and courage. But they are also about math---and a lot of it! From counting how many athletes are expected and finding places for all of them to sleep to timing some of the fastest humans on Earth, math matters at the Games.

The difference between winning a gold medal in first place and silver in second might be thousandths of a second. Sometimes less is more when it comes to race times in running, skiing, or swimming. Sometimes more IS more! Weight lighters try to lift as much as they can. Snowboarders, ice skaters, and gymnasts all want high scores. Even the geometry of the playing field is important. Athletes need to know that the size of their practice pool or court is the same as the one in competition.

Natural ability is important for medal-winning speed, but nothing beats training for the power and strength that gets you to the finish line first. From sprinters to wheelchair marathoners, swimmers to skaters, each athlete has a unique speed training plan. On your field trip to the United States Olympic & Paralympic Museum, you will hear from track and field medalist and world record holder Carmelita "The Jet" Jeter about her own training routine. Then, you can choose from eight Team USA athletes to race against and have your performance reviewed by Carmelita herself. Math in action!

Math also shows how much the Games have spread around the world. The Olympics and Paralympics bring thousands of athletes together from every continent except Antarctica. The first Summer Olympics featured only 14 nations participating in 42 sporting events. Now athletes represent over 200 countries in over 300 events!

NAME:

CLASS:

DATE:

Part 1: Measuring Excellence

Practice using decimals, measuring elapsed time, and calculating lengths, perimeter, and area with these fascinating Olympic and Paralympic facts about Team USA.

1. In 1896, American runner Tom Burke won the 100-meter race in 12.00 seconds. One century later, Canadian Donovan Bailey won the same distance in 9.84 seconds. How much faster did Bailey run 100 meters a hundred years after Burke?

2. In 2016, Team USA member Justin Gaitlin ran 100 meters in 9.89 seconds, but that was only fast enough for second place. Usain Bolt from Jamaica won the gold medal in 9.81 seconds. What was the difference between Gaitlin's and Bolt's times in 2016?

Swimmer Trisha Zorn is the most decorated American Olympic or Paralympic athlete so far and the most successful athlete in the history of the Paralympic Games. Blind since birth, she swam in the 1980, 1984, 1988, 1992, 1996, 2000, and 2004 Paralympic Games. She won over 50 medals and most of them are gold!

3. For how many years did Zorn swim in the Paralympics?

4. One length of the pool is 50 m (meters). Zorn swam races that were 50 m, 100 m, 200 m, and 400 m. How many lengths of the pool did she swim for 100 m? 200 m? 400 m?

5. In 1988, she won a gold medal in the 50-meter freestyle race with a time of 29.53 seconds. Four years later, she finished first again in 29.32 seconds. How much faster was she in 1992?

NAME:

CLASS:

DATE:

*Indoor volleyball is played in both the Olympic and Paralympic Games. In the Paralympics, the athletes sit on the floor and play over a lower net. How do the sizes of the courts compare? Calculate the perimeters and areas of the two courts. (**p = l + l + w + w** and **a = l x w**)*

Volleyball Courts	Length	Width
Paralympic	10 m	6 m
Olympic	18 m	9 m

6. What shape are both of the courts?

_____

7. What are the perimeter and area for the Paralympic volleyball court?

_____

8. What are the perimeter and area for the Olympic volleyball court?

_____

9. Why do you think the Paralympic indoor volleyball court is smaller than the one used for the Olympics?

_____

_____

10. Beach volleyball is also an Olympic sport. It is played outside on sand with a court that is 16 m long and 8 m wide. How does the size of the court for beach volleyball compare to those used for indoor volleyball in the Paralympic and Olympic Games?

_____

NAME:

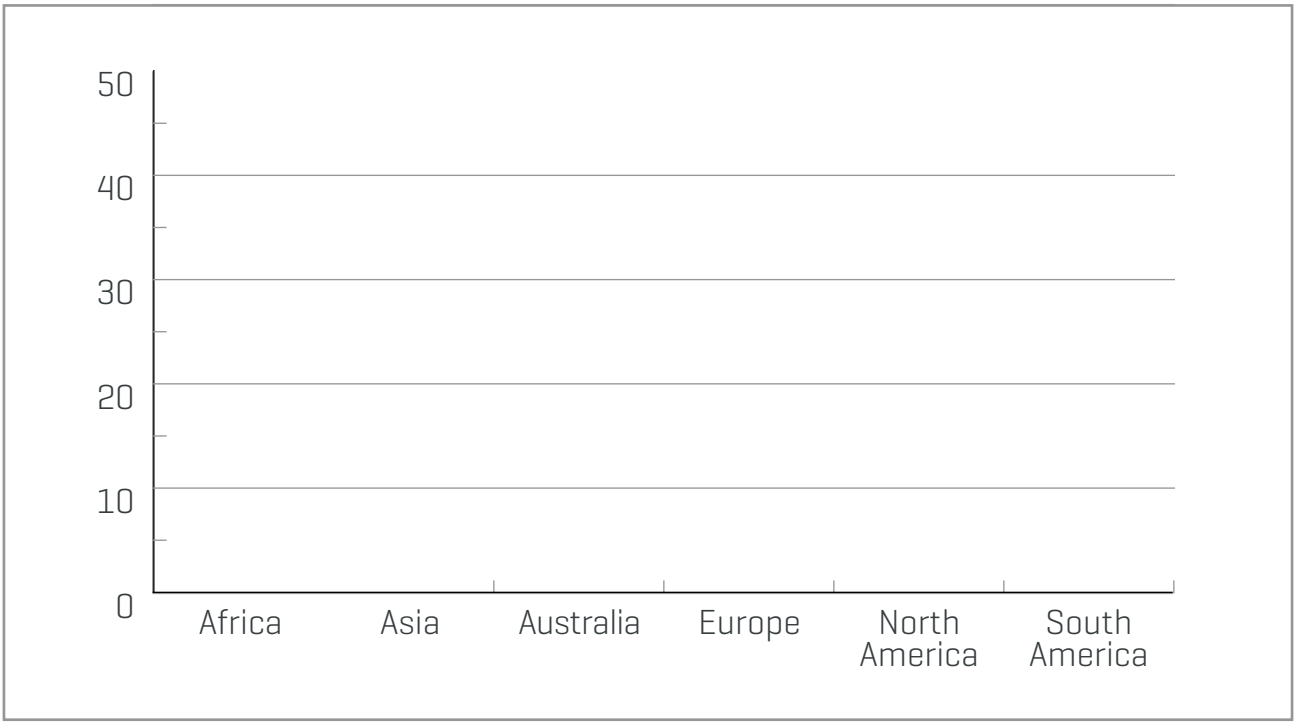
CLASS:

DATE:

Part 2: Counting Continents

Athletes from all over the world participate in the Games, but not every continent in the world has hosted the Olympic and Paralympic Games yet. This chart lists how many times inhabited continents will have hosted the Olympics and Paralympic Games through the year 2028. The totals include places that were chosen to host, but the Games were cancelled. Use the data to make a bar graph, then answer the questions that follow.

Africa	0
Asia	11
Australia	2
Europe	42
North America	14
South America	1



NAME:

CLASS:

DATE:

1. Which continent has hosted the most Games?

2. Have all the other continents combined hosted more or less Games than the continent which has the most?

3. What is the difference between the number times North America and South America have been chosen to host the games?

4. Which continent has hosted more Games, Asia or Australia?

5. Which continent, besides Antarctica, has never hosted the Games? Why do you think might be the reason(s) for that?

6. Why do you think Antarctica is considered uninhabited?

NAME:

CLASS:

DATE:

7. Why might a city or country want to host the Olympic and Paralympic Games?

_____

_____

8. Why might a city or country not want to host the Games?

_____

_____

Lesson Plan 3
Team USA Hometown Heroes

TEACHER INSTRUCTIONS & KEY

Social Studies; Reading, Writing, & Communicating
Geography, Research Inquiry & Design, Writing & Composition

You might live closer to an Olympic or Paralympic athlete than you think! Everyone comes from somewhere, from little towns with small populations to huge cities with millions of people. If you live near one of Team USA's Olympic and Paralympic Training Centers, like the one in Colorado Springs, your chances of being neighbors with a champion are pretty good. On your field trip to the United States Olympic & Paralympic Museum, a large interactive map of the United States allows your students to access details about Team USA athletes including their hometowns, birthdays, medal counts, competitions and more!

All Olympic and Paralympic athletes are champions for the sacrifices they make and the amount of time they dedicate to their dream. Some discovered a love for their sport in childhood, maybe even in elementary school, and made it to the Games by high school. Others excelled while in college or the military. Are any of their schools or military bases near where you live? What else might your students have in common with Team USA champions?

In Part 1 of this Team USA Hometown Hero project, your class will research Olympic or Paralympic athletes with ties to their hometown or other places that have personal meaning to them. In addition to searching online for Olympians and Paralympians from your area, students will find biographies and articles about some athletes on www.teamusa.org/Athletes, www.teamusa.org/hall-of-fame/hall-of-fame-members, and www.usopm.org. They can use the "search" function (magnifying glass icon) to enter the name of their town and read about individual athletes, their backgrounds, and their Olympic or Paralympic accomplishments.

Once students select an athlete they want learn more about and use for a biography project, they will fill in the chart provided. If a category of information is not available or applicable, such as date of death if the person is alive, students should put an X in the chart. Nothing should be left blank. If your class can use approved research sites or your media center's online resources, then students can continue to research their hometown hero for additional facts.

After their investigation, they will present the biography in the form of a colorful "one-pager" that you can display in a Team USA Hometown Hero Hall of Fame in your school. A one-pager is a way for students to demonstrate all that they learned about a person on just one piece of paper! Part 2 in the student section below provides a template and leads them through the steps to complete their project.

ANSWER KEY

Part 1
Assessment is based on completion of the chart plus three additional facts with a possible total of 19 points. Each space on the chart is worth one point and an **X** for data that is not available or applicable counts as correct.

Part 2
Assess based on completion and effort. Maximum points listed below for a total of 24 possible.

Project Guidelines:

- ____**/3 pts** Your page should be full of information, but still easy to read and understand.
- ____**/2 pts** Make it colorful and leave little white space.
- ____**/2 pts** Half of the information should be in pictures, images, and symbols.
- ____**/2 pts** Half of the information should be written.

Content:

- ____**/2 pts** Write the athlete's name in the top margin and yours in the bottom margin.
- ____**/2 pts** The circle in the center is for a picture of the person (either drawn or printed).
- ____**/2 pts** Use one corner section to explain or show why you choose this person and what location connects you.
- ____**/3 pts** Use another corner section for three personal details such as their date of birth, height, nickname, or subjects studied at school, for example.
- ____**/3 pts** Use another corner section to show three things you learned about their training such as activities in college, the military, or on other teams.
- ____**/3 pts** Use the last corner section to describe three things about their Olympic or Paralympic experience.

NAME:

CLASS:

DATE:

Team USA Hometown Heroes

STUDENT ACTIVITY

Terms to Know:
biography, excelled, margin, military, Paralympic, template

You might live closer to an Olympic or Paralympic athlete than you think! Everyone comes from somewhere, from little towns with small populations to huge cities with millions of people. If you live near one of Team USA's Olympic and Paralympic Training Centers like the one in Colorado Springs, your chances of being neighbors with a champion are pretty good.

All Olympic and Paralympic athletes are champions for the sacrifices they make and the amount of time they dedicate to their dream. Some of them discovered a love for their sport in childhood, maybe even in elementary school, and made it to the Games by high school. Others excelled in college or in the military. Are any of their schools or military bases near where you live? What else might you have in common with Team USA champions?

On your field trip to the United States Olympic & Paralympic Museum (USOPM), a large interactive map of the United States has touchscreens where you can select details about Team USA athletes like their hometowns, medal counts, competitions, and more! How many gold medal winners share your name? Were any Paralympians born on your birthday?

In Part 1 of this Team USA Hometown Hero project, you will research an Olympic or Paralympic athlete with ties to your hometown or another place that is important to you. After you research this person, you will present their biography in the form of a colorful "one-pager" that your teacher will display in a Team USA Hometown Hero Hall of Fame in your school. Part 2 lists the steps you need to complete your project.

Part 1

With your teacher's permission, search online for Olympians and Paralympians from your city. Begin with your school's approved research sites or media center's resources. You will also find biographies and articles about some athletes on www.teamusa.org/Athletes, www.teamusa.org/hall-of-fame/hall-of-fame-members, and www.usopm.org. Use the "search" function (magnifying glass icon) and enter the name of your town to read about individual athletes, their backgrounds, and their Olympic or Paralympic accomplishments. If you prefer, you can enter another location with a special connection to you.

NAME:

CLASS:

DATE:

After you browse through the local athletes, select the Olympian or Paralympian you want to use for your biography project. Fill in the form below. Do not leave any spaces blank. If something does not apply to the person, put an **X** in that space. For example, if the athlete you are learning about is still alive, there will not be a date of death. In the last row, "Game(s)" and "Year(s)" are the name of the city and the year for their Olympics or Paralympics. Each space is worth one point for a total of 16 points.

Athlete's name (first and last): _____

Nickname or other name used: _____

Date of birth: _____ **Date of death:** _____

Place of birth: _____ **Hometown:** _____

Age at competition: _____ **Height:** _____

College or university: _____ **Areas of study:** _____

Professional team or other sports club: _____

Military experience: _____

Game(s): _____ **Year(s):** _____

Sport: _____ **Event in that sport:** _____

Write down three other new things you learned. (3 points)

1. _____

_____

_____

NAME:

CLASS:

DATE:

2. _____

_____

_____

3. _____

_____

_____

Part 2

A biography one-pager is a way for you to show everything you have learned about a person on just one piece of paper, using both words and pictures. You will make one for your Team USA Hometown Hero using the template on the next page. Your directions are listed here. This project is worth a total of 24 possible points.

Project Guidelines:

- Your page should be full of information, but still easy to read and understand. (3 points)
- Make it colorful and leave little white space. (2 points)
- Half of the information about the person should be in pictures, images, and symbols. (2 points)
- Half of the information about the person should be written. (2 points)

Project Content:

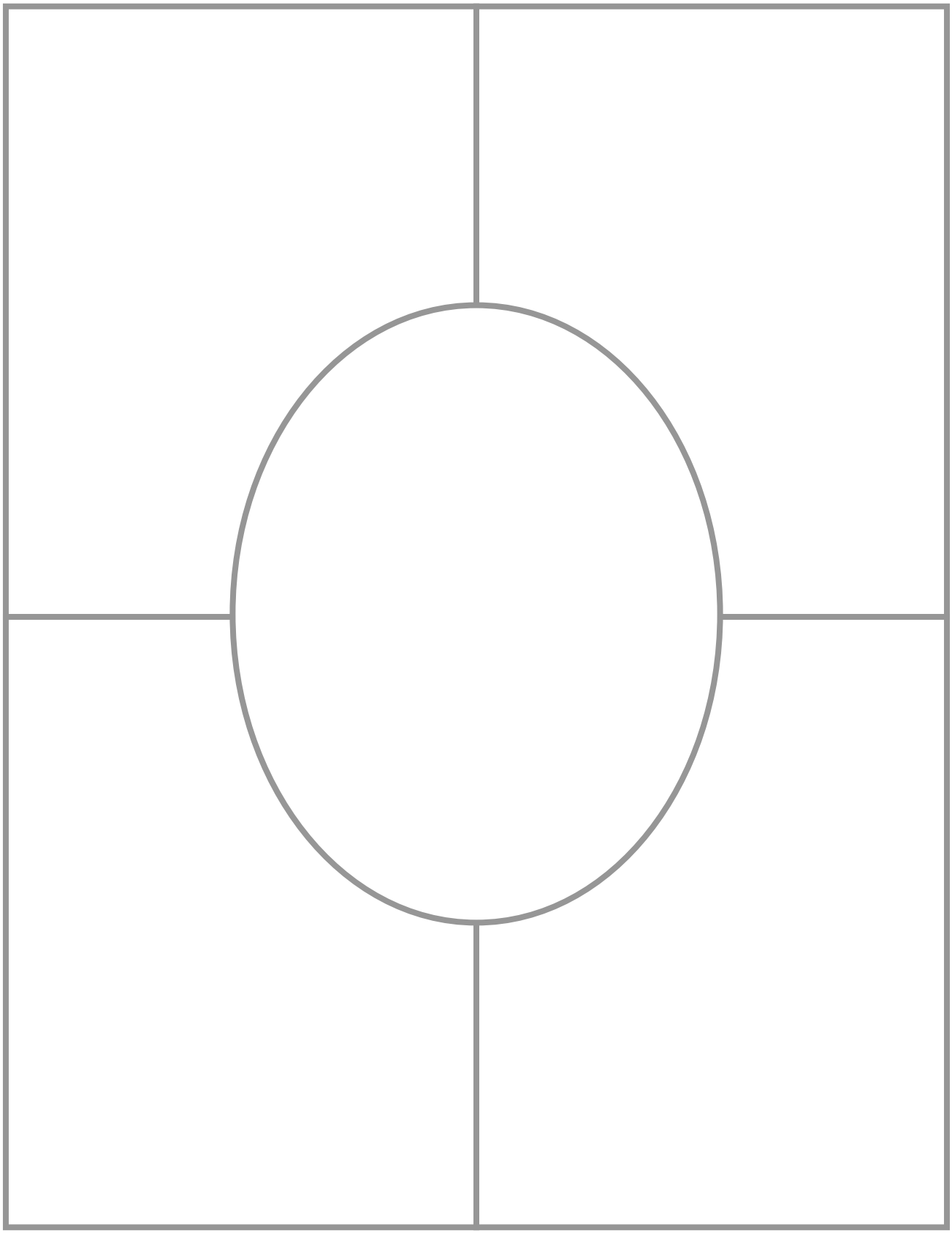
- Write the athlete's name in the top margin and yours in the bottom margin. (2 points)
- The circle in the center of the page is for a picture of the person (either drawn or printed). (2 points)
- Use one corner section of the page to explain or show why you choose this person and what location connects you. (2 points)
- Use another corner section for three personal details such as their date of birth, height, nickname, or subjects studied at school, for example. (3 points)
- Use another corner section to show three things about their training such as activities in college, military service, or other teams they were on. (3 points)
- Use the last corner section to describe three things about their Olympic or Paralympic experience. (3 points)

Add your page to the Team USA Hometown Hero Hall of Fame in your school!

NAME:

CLASS:

DATE:



Lesson Plan 4
Winter Games: Feeling the Heat

TEACHER INSTRUCTIONS & KEY

Science; Reading, Writing, & Communicating
Earth Science, Research Inquiry & Design

If you live in a place with cold, snowy winters then you know how much fun it is to ski, snowboard, and sled with friends and family. Someday you could be doing the same thing with Team USA as one of the 21 events featured in the Winter Olympic and Paralympic Games. In the Winter Gallery at the United States Olympic & Paralympic Museum (USOPM), you will see a Paralympic snowboarder soar through the air, a figure skater begin a combination, a bobsled zip by - all moving towards you and around you. Every Winter event is represented at least once in this dramatic, unforgettable experience.

Interest in the Winter Games has snowballed over the years, even in places that have never seen snow. Climate change, however, makes it harder to find places that can have winter sports. Winters are warmer now in locations where there used to always be snow. Human activities like air pollution from burning fossil fuels cause the "greenhouse effect." The greenhouse effect is partly to blame for how climate change hurts winter sports. It also affects cities and towns that depend on money from tourists who come to ski and snowboard every winter.

Members of Team USA are speaking out about climate change and the seriousness of the problem. Snowboarder Arielle Gold says, "We still have a chance to be able to kind of salvage whatever is left of our winters, and get back to a more sustainable way of life. I want the Winter Olympics to go on forever. I want future generations to be able to experience it in the same way that I've been able to."

In these activities, your students will first review earth science terms about climate and weather. In Part 1 they will match terms and definitions and use them to fill in a cloze notes paragraph. In Part 2, students will conduct a simple experiment to see how snow and ice melt more quickly when greenhouse gases are trapped in the atmosphere. This activity can be done in groups or as a demonstration. You can challenge students to experiment with other variables such as more or less humidity, the role of insulators, or even the color of the substrate, to predict their effects.

Ask students how the results from their greenhouse experiment might apply to saving winter sports. In Part 3, students will devise their own solutions for the scientists, engineers, Olympians, and Paralympians of the future to make sure we always have a way to play the Winter Games. A planning guide will take student groups through the first steps of the design process for this hypothetical engineering challenge. The final product will be a diagram illustrating how their innovative technology could save the Winter Games. You will need to provide large pieces of paper or poster boards for the groups.

ANSWER KEY

Part 1

1. d
2. f
3. a
4. h
5. c
6. i
7. b
8. e
9. g
10. j

Cloze: climate…weather…season…climate change…temperature

Part 2

Answers will vary based on the specific supplies used in the experiment, but the results will show that the temperature rose more quickly in the model covered with the plastic wrap because it served as a barrier, trapping heat from the sun inside the cup/glass.

Part 3

Assess the groups' planning guides for completion.

NAME:

CLASS:

DATE:

Winter Games: Feeling the Heat

STUDENT ACTIVITY

Terms to Know:
arena, artificial, carbon dioxide, century, fossil fuel, host, Paralympics, salvage, sustainable

If you live in a place with cold, snowy winters then you know how much fun it is to ski, snowboard, and sled with your friends and family. Someday you could be doing the same sports with Team USA as one of 21 events featured in the Winter Olympic and Paralympic Games. At the United States Olympic & Paralympic Museum (USOPM), you will see every Winter event represented at least once in the Winter Gallery.

Interest in the Winter Games has snowballed over the years, even in places that have never seen snow. Climate change makes it hard to find places to play winter sports because it is warmer now in locations where there used to always be snow. Human activities like air pollution from burning fossil fuels cause the "greenhouse effect." The greenhouse effect is partly to blame for how climate change hurts winter sports. It also affects cities and towns that depend on money from tourists who come to ski and snowboard every winter.

Members of Team USA are speaking out about climate change. They want Americans to know how serious it is. Snowboarder Arielle Gold says, "We still have a chance to be able to kind of salvage whatever is left of our winters, and get back to a more sustainable way of life. I want the Winter Olympics to go on forever. I want future generations to be able to experience it in the same way that I've been able to."

In these activities, you will first review earth science terms about climate and weather. Next, you will do an experiment to see how snow and ice melt more quickly when greenhouse gases are trapped in the atmosphere. Finally, you will offer solutions to future scientists, engineers, and Olympians and Paralympians to make sure we always have a way to play the Winter Games.

NAME:

CLASS:

DATE:

Part 1

Review these terms and their definitions from your Science class and use them for the cloze notes paragraph that follows.

Matching: Match the letter of the term to its definition.

a. Atmosphere	e. Thermometer	i. Season
b. Climate	f. Greenhouse gas	j. Weather
c. Temperature	g. Climate change	
d. Humidity	h. Greenhouse effect	

1. _____ Amount of water in the air
2. _____ A gas like carbon dioxide that is caused by pollution; it contributes to the greenhouse effect and climate change by absorbing heat
3. _____ Mixture of gasses that surrounds Earth
4. _____ Warming of the Earth due to heat-trapping gases, like carbon dioxide and other pollutants
5. _____ Measure of heat or cold
6. _____ One of four different times of the year, lasting for three months, with different types of weather
7. _____ Average weather conditions in an area over a long period of time
8. _____ Tool used to measure temperature
9. _____ Long-term changes in the climate of Earth that happen naturally or because of human activities
10. _____ Changes in the atmosphere on a daily basis

Cloze Notes Paragraph: Use five terms from the list above to fill in this paragraph.

A city needs years to get ready for the Olympic and Paralympic Games. Scientists, athletes, and builders study_____, not the daily_____, to see where it will be cold enough for the Winter Games. Summer Games could be held in a different _____, such as Fall or Spring, but the Winter Games need a lot of snow on the ground. Because of_____, the average_____is getting too high for the Winter Games to be played in places that were once host cities.

NAME:

CLASS:

DATE:

Part 2

The greenhouse effect causes snow and ice to melt in places where people once skied, sledded, and ice skated. Scientists fear that if we do not reduce the amount of greenhouse gases in the atmosphere, few cities will be able to host the Winter Olympics by the end of this century. The greenhouse effect is like getting into a car parked for a while with the windows up on a sunny day. Heat from the sun gets trapped in the car, raising the temperature inside. Though invisible, greenhouse gasses like carbon stay in Earth's atmosphere where they trap heat near the surface and raise the temperature. Try this experiment to see this effect on a model.

Supplies:

- 2 clear cups/jars of the same size
- Soil
- Ruler
- 2 thermometers (to fit in the cups/jars)
- 4 ice cubes
- Plastic wrap
- Rubber band or tape
- Data chart and pencil
- Clock or timer

Steps:

1. Cover the bottom of the jars with soil. Use a ruler to make sure there is an equal amount of soil in both. These are your models of Earth.
2. Put 2 ice cubes on the soil in each model.
3. Place a thermometer in each model.
4. Cover the top of one model with plastic wrap, to represent the greenhouse gasses trapped in the atmosphere. Use a rubber band or tape to hold the plastic wrap on tightly. Leave the other model open.
5. Place your models by a sunny window or outside in the sunlight.
6. Check the clock when you set your models in the sun. In the chart below, record the time the experiment begins in the first row and write the temperature for each model.
7. Check the temperature on the thermometers every 15 minutes for one hour. If the ice cubes have melted completely in one the models at one of the time checks, circle that time and temperature on your chart.

Time	Temperature in Open Model #1	Temperature in Covered Model #2
Start: 0 minutes		
15 minutes		
30 minutes		
45 minutes		
60 minutes		

NAME:

CLASS:

DATE:

1. What was the difference between the first and last temperatures for model 1?

2. What was the difference between the first and last temperatures for model 2?

3. In which model did the ice cubes melt first?

4. What role did the plastic wrap play in the temperature change in model 2?

5. How does this experiment show that the greenhouse effect might make it harder to find places to host the Games?

Part 3

For winter sports like hockey, curling, and ice skating, indoor arenas keep the ice permanently frozen. For sports that have to be outside, the solutions aren't so easy. The answers to this century's climate change problems will come from this century's newest engineers and athletes. It's time to think outside of the box, or maybe under the sled, for this design challenge.

Work with your group to select one way that winter sports are affected by climate change and create a new solution to the problem. What ideas do you have? What about bobsleds that freeze a track as they go? Indoor ski jumps? A new formula for artificial snow? Cross-country skis that lay down snow? Prepare your idea as a design challenge proposal using the planning guide on the next page to help you think through the steps. If the technology doesn't exist yet, invent it! The sky—or maybe a snow-covered the mountain—is the limit.

NAME:

CLASS:

DATE:

Winter Games: Feeling the Heat Design Challenge

Step 1 Identify the challenge. What problem are you going to solve for the future of the Winter Olympic & Paralympic Games?

Step 2 Brainstorm solutions. List some of the ideas your group has before choosing one.

Step 3 Select the best solution. How will it solve the problem in Step 1?

Step 4 Define the audience. Who is affected by the problem and how will your solution help them?

Step 5 Describe your invention. Explain how it works in a list of steps. Use separate paper if needed.

Step 6 Draw and label a large diagram of your invention. Use a large piece of paper.

Step 7 Present your design to the class by reviewing how your team handled Steps 1 – 4 and introduce your solution using Steps 5 & 6.

United States
Olympic
& Paralympic
Museum

THE EXTRA MILE

Additional Resources

When & Where: Timeline of the Modern Olympic & Paralympic Games

TEACHERS! Keep this reference guide handy. This information can be used:

- For historical geography, by mapping locations and name changes over time.
- To develop group study aids such as trivia contests and games or quiz shows.
- As writing prompts and research project topics.
    - For games that were cancelled because of war, the cities where they were scheduled to be held are listed. Can your students identify which Games were affected by those world events?
    - Team USA participated in all the Games except for the summer of 1980. What was the rationale and subsequent fall-out for refusing to participate in the Games then?
    - On your field trip to USOPM, your students will explore the darkest day in Olympic history, the Munich Massacre at the 1972 Summer Games. Who was David Berger and why is he significant to this tragic story?

In the "Games" column: S = Summer, W = Winter, O = Olympics, P = Paralympics.

Year	Games	City	Country
1896	SO	Athens	Greece
1900	SO	Paris	France
1904	SO	St. Louis	USA
1908	SO	London	UK
1912	SO	Stockholm	Sweden
1916	SO	Scheduled for Berlin	Germany
1920	SO	Antwerp	Belgium
1924	SO	Paris	France
	WO	Chamonix	France
1928	SO	Amsterdam	Netherlands
	WO	St. Moritz	Switzerland

Year	Games	City	Country
1932	SO	Los Angeles	USA
	WO	Lake Placid	USA
1936	SO	Berlin	Germany
	WO	Garmisch-Partenkirchen	Germany
1940	SO	Scheduled for Tokyo	Japan
	WO	Scheduled for Sapporo	Japan
1944	SO	Scheduled for London	UK
	WO	Scheduled for Cortina	Italy
1948	SO	London	UK
	WO	St. Moritz	Switzerland
1952	SO	Helsinki	Finland
	WO	Oslo	Norway
1956	SO	Melbourne	Australia
	WO	Cortina d'Ampezzo	Italy
1960	SOP	Rome	Italy
	WO	Squaw Valley	USA
1964	SOP	Tokyo	Japan
	WO	Innsbruck	Austria
1968	SO	Mexico City	Mexico
	SP	Tel Aviv	Israel
	WO	Grenoble	France
1972	SO	Munich	West Germany (now Germany)
	SP	Heidelberg	West Germany (now Germany)
	WO	Sapporo	Japan
1976	SO	Montreal	Canada
	SP	Toronto	Canada
	WO	Innsbruck	Austria
	WP	Örnsköldsvik	Sweden
1980	SO	Moscow	USSR (now Russia)
	SP	Arnhem	Netherlands
	WO	Lake Placid	USA
	WP	Geilo	Norway
1984	SO	Los Angeles	USA
	SP	New York/Stokeville	USA/UK
	WO	Sarajevo	Yugoslavia (now Bosnia and Herzegovina)
	WP	Innsbruck	Austria

Year	Games	City	Country
1988	SOP	Seoul	South Korea
	WO	Calgary	Canada
	WP	Innsbruck	Austria
1992	SOP	Barcelona	Spain
	WO	Albertville	France
	WP	Tignes - Albertville	France
1994	WOP	Lillehammer	Norway
1996	SOP	Atlanta	USA
1998	WOP	Nagano	Japan
2000	SOP	Sydney	Australia
2002	WOP	Salt Lake City	USA
2004	SOP	Athens	Greece
2006	WOP	Torino (Turin)	Italy
2008	SOP	Beijing	China
2010	WOP	Vancouver	Canada
2012	SOP	London	UK
2014	WOP	Sochi	Russia
2016	SOP	Rio de Janeiro	Brazil
2018	WOP	PyeongChang	South Korea
2020	SOP	Tokyo (held in 2021)	Japan
2022	WOP	Beijing	China
2024	SOP	Paris	France
2026	WOP	Milan-Cortina	Italy
2028	SOP	Los Angeles	USA

Team USA: Olympic & Paralympic Hall of Fame Inductees

Established in 1979, the U.S. Olympic and Paralympic Hall of Fame celebrates the achievements of Team USA's premier athletes and teams, as well as the impact of legendary coaches and special contributors. Since the first Hall of Fame class was inducted in 1983, nearly 150 individuals and teams have been honored for their contributions to the U.S. Olympic and Paralympic movements. Beginning with a new induction class in 2019, nominations and awards take place every two years. Inductee classes are comprised of five Olympians, three Paralympians, two legends, one team, one coach and one special contributor. The U.S. Olympic and Paralympic Hall of Fame is one of the first major sports hall of fames to incorporate fan voting into its selection process.

TEACHERS! On your field trip to USOPM, your students will see the Hall of Fame and virtually engage with its elite members. Below is a list of inductees. This information can be used in your classroom to generate inquiry-based research projects across the curriculum. There is a searchable database of HOF members online: www.teamusa.org/hall-of-fame/hall-of-fame-members.

- Examine the criteria for inclusion in the Olympic and Paralympic Hall of Fame. Create a nomination form based on athletes who competed in the Games in or closest to the year you were born. Present a final ballot to your class, tally the results, and hold a mock induction ceremony.
- Prepare a multi-media biography of two HOF-ers who are new to you, one Olympian and one Paralympian. Include backgrounds, career highlights, and off-the-field accomplishments.
- Add new inductees to this list.
- Research the roles of the Legends and the Special Contributors. Who are they? What did they do to earn their spot? Who would you like to see added?
- Data Analysis: Men vs. Women, Team vs. Individual, Summer vs. Winter, Most/Least Popular Sports

Induction Years	Sports	Game Years
1983		
Cassius Clay (Muhammad Ali)	Boxing	1960
Bob Beamon	Track and Field	1968
Dick Button	Figure Skating	1948, 1952
Babe Didrikson	Track and Field	1932

Induction Years	Sports	Game Years
Harrison Dillard	Track and Field	1948, 1952
Eddie Eagan	Bobsled, Boxing	1920, 1924, 1932
Ray Ewry	Track and Field	1900, 1904, 1908
Peggy Fleming	Figure Skating	1964, 1968
Eric Heiden	Speedskating	1976, 1980
Rafer Johnson	Track and Field	1956, 1960
Bob Mathias	Track and Field	1948, 1952
Al Oerter	Track and Field	1956, 1960, 1964, 1968
Jesse Owens	Track and Field	1936
Bob Richards	Track and Field	1948, 1952, 1956
Wilma Rudolph	Track and Field	1956, 1960
Don Schollander	Swimming	1964, 1968
Mark Spitz	Swimming	1968, 1972
Jim Thorpe	Track and Field	1912
Johnny Weissmuller	Swimming, Water Polo	1924, 1928
1980 Olympic Men's Ice Hockey Team	Ice Hockey	1980
Avery Brundage	Special Contributor	
1984		
Duke Kahanamoku	Swimming, Water Polo	1912, 1920, 1924
Billy Mills	Track and Field	1964
John Naber	Swimming	1976
Parry O'Brien	Track and Field	1952, 1956, 1960, 1964
Frank Shorter	Track and Field	1972, 1976
Bill Toomey	Track and Field	1968
Frank Wykoff	Track and Field	1928, 1932, 1936
1960 Olympic Men's Basketball Team	Basketball	1960
Col. F. Don Miller	Special Contributor	
1985		
Ralph Boston	Track and Field	1960, 1964, 1968
Dan Gable	Wrestling	1972
Alvin Kraenzlein	Track and Field	1900
Sugar Ray Leonard	Boxing	1976
Carl Lewis	Track and Field	1984, 1988, 1992
Greg Louganis	Diving	1976, 1984, 1988
Pat McCormick	Diving	1952, 1956
Edwin Moses	Track and Field	1976, 1984, 1988
Mary Lou Retton	Gymnastics	1984

Induction Years	Sports	Game Years
Wyomia Tyus	Track and Field	1964, 1968
Henry Iba	Special Contributor	
1986		
Glenn Davis	Track and Field	1956, 1960
Bruce Jenner (Caitlyn Jenner)	Track and Field	1972, 1976
Debbie Meyer	Swimming	1968
1956 Olympic Men's Basketball Team	Basketball	1956
Robert J. Kane	Special Contributor	
1987		
Shirley Babashoff	Swimming	1972, 1976
Donna de Varona	Swimming	1960, 1964
Floyd Patterson	Boxing	1952
LeRoy T. Walker	Special Contributor	
1988		
Tenley Albright	Figure Skating	1952, 1956
Mal Whitfield	Track and Field	1948, 1952
Charles Daniels	Legend, Swimming	1904, 1908
1964 Olympic Men's Basketball Team	Basketball	1964
Jim McKay	Special Contributor	
1989		
John Davis	Weightlifting	1940, 1948, 1952
Lee Evans	Track and Field	1968, 1972
Joe Frazier	Boxing	1964
Bobby Joe Morrow	Track and Field	1956, 1960
Mel Sheppard	Legend, Track and Field	1908, 1912
1960 Olympic Men's Ice Hockey Team	Ice Hockey	1960
Roone Arledge	Special Contributor	
1990		
Tracy Caulkins	Swimming	1980, 1984
George Foreman	Boxing	1968
Scott Hamilton	Figure Skating	1980, 1984
Tommy Kono	Weightlifting	1952, 1956, 1960
Sammy Lee	Diving	1948, 1952
Jack Kelly, Sr.	Legend, Rowing	1920, 1924
Asa Smith Bushnell	Special Contributor	

Induction Years	Sports	Game Years
1991		
Lee Calhoun	Track and Field	1956, 1960
Bart Conner	Gymnastics	1976, 1980, 1984
Willie Davenport	Bobsled, Track and Field	1964, 1968, 1972, 1976, 1980
Dorothy Hamill	Figure Skating	1976
Peter Vidmar	Gymnastics	1980, 1984
Charley Paddock	Legend, Track and Field	1920, 1924, 1928
William E. Simon	Special Contributor	
1992		
Milt Campbell	Track and Field	1952, 1956
Connie Carpenter	Cycling, Speedskating	1984, 1972
Dick Fosbury	Track and Field	1968
Col. Micki King	Diving	1968, 1972
Phil Mahre	Alpine Skiing	1980, 1984
Helene Madison	Legend, Swimming	1932
Col. Don Hull	Special Contributor	
Jack Kelly, Jr.	Special Contributor	1948, 1952, 1956, 1960
2004		
Matt Biondi	Swimming	1984, 1988, 1992
Bonnie Blair	Speedskating	1984, 1988 1992, 1994
Janet Evans	Swimming	1988, 1992, 1996
Florence Griffith Joyner	Track and Field	1984, 1988
Dan Jansen	Speedskating	1984, 1988, 1992, 1994
Jackie Joyner-Kersee	Track and Field	1984, 1988, 1992, 1996
Randy Snow	Para Track and Field, Wheelchair Basketball, Wheelchair Tennis	1984, 1992, 1996, 2000
Alice Coachman	Legend, Track and Field	1948
1996 Olympic Women's Soccer Team	Soccer	1996
Bud Greenspan	Special Contributor	
2006		
Evelyn Ashford	Track and Field	1976, 1980, 1984, 1988, 1992
Rowdy Gaines	Swimming	1980, 1984
Diana Golden	Para Alpine Skiing	1988
Bob Hayes	Track and Field	1964
Shannon Miller	Gymnastics	1992, 1996
Kristi Yamaguchi	Figure Skating	1992
Jack Shea	Legend, Speedskating	1932
1984 Olympic Men's Gymnastics Team	Gymnastics	1984

Induction Years	Sports	Game Years
Herb Brooks	Coach, Ice Hockey	1980, 2002
Dick Ebersol	Special Contributor	
2008		
Bruce Baumgartner	Wrestling	1984, 1988, 1992, 1996
Joan Benoit	Track and Field	1984
Brian Boitano	Figure Skating	1984, 1988, 1994
Oscar De La Hoya	Boxing	1992
Karch Kiraly	Volleyball	1984, 1988, 1996
John Morgan	Para Swimming	1984, 1992
J. Michael Plumb	Equestrian	1960, 1964, 1968, 1972, 1976, 1980, 1984, 1992
David Robinson	Basketball	1988, 1992, 1996
Amy Van Dyken	Swimming	1996, 2000
Lones Wigger, Jr.	Shooting	1964, 1968, 1972, 1980
Carol Heiss	Legend, Figure Skating	1956, 1960
1996 Olympic Women's Gymnastics Team	Gymnastics	1996
Carlo Fassi	Coach, Figure Skating	1968, 1976, 1980, 1988
Frank Marshall	Special Contributor	
2009		
Teresa Edwards	Basketball	1984, 1988, 1992, 1996, 2000
Michael Johnson	Track and Field	1992, 1996, 2000
Mary T. Meagher	Swimming	1984, 1988
Picabo Street	Alpine Skiing	1994, 1998, 2002
Willye White	Track and Field	1956, 1960, 1964, 1968, 1972
Sarah Will	Para Alpine Skiing	1992, 1994, 1998, 2002
Andrea Mead Lawrence	Legend, Alpine Skiing	1948, 1952, 1956
1992 Olympic Men's Basketball Team	Basketball	1992
Abie Grossfeld	Coach, Gymnastics	1964, 1968, 1972, 1984, 1988
Kevan Gosper	Special Contributor	
Peter Ueberroth	Special Contributor	
2012		
Gail Devers	Track and Field	1988, 1992, 1996, 2000, 2004
Jean Driscoll	Para Track and Field	1988, 1992, 1996, 2000
Lisa Fernandez	Softball	1996, 2000, 2004
Gary Hall, Jr.	Swimming	1996, 2000, 2004
Kristine Lilly	Soccer	1996, 2000, 2004
Dan O'Brien	Track and Field	1996

Induction Years	Sports	Game Years
Jenny Thompson	Swimming	1992, 1996, 2000, 2004
James Connolly	Legend, Track and Field	1896, 1900, 1906
2004 Olympic Women's Softball Team	Softball	2004
Ed Temple	Coach, Track and Field	1960, 1964, 1980
James L. Easton	Special Contributor	
Ted Stevens	Special Contributor	
2019		
Candace Cable	Para Alpine skiing, Para Nordic Skiing, Para Trac Field	1980, 1988, 1992, 1992, 1994, 1996, 1998, 2002, 2006
Lisa Leslie	Basketball	1996, 2000, 2004, 2008
Nastia Liukin	Gymnastics	2008
Misty May-Treanor	Beach Volleyball	2004, 2008, 2012
Apolo Anton Ohno	Short Track Speedskating	2006, 2008, 2010
Erin Popovich	Para Swimming	2000, 2004, 2008
Dara Torres	Swimming	1984, 1988, 1992, 2000, 2008
Chris Waddell	Para Alpine Skiing, Para Track and Field	1992, 1994, 1996, 1998, 2000, 2002, 2004
1998 Olympic Women's Ice Hockey Team	Ice Hockey	1998
John Carlos	Legend, Track and Field	1968
Tommie Smith	Legend, Track and Field	1968
Ron O'Brien	Coach, Diving	
Tim Nugent	Special Contributor	

United States
Olympic
& Paralympic
Museum

OLYMPIC GAMES

Puzzles and Challenges

NAME:

CLASS:

DATE:

Cryptogram: Voice of a Champion

Chris Waddell did not give up after a ski accident left him paralyzed from the waist down. He started alpine skiing as a Paralympian and went on to win world titles in skiing and track. Of his 12 Paralympic medals, four are gold. In 2009, he took on a new challenge—a mountain! He reached the summit of Mount Kilimanjaro in a four-wheel hand cycle.

Solve the cryptogram below to learn more about his attitude and outlook on life. Use the key to match the numbers to their letters. Some of the letters have been filled in to get you started (1 = T, 15 = D, 20 = N).

Key

A	B	C	**D**	E	F	G	H	I	J	K	L	M
8	23	9	**15**	7	24	5	25	4	18	14	21	22

N	O	P	Q	R	S	**T**	U	V	W	X	Y	Z
20	3	11	6	26	12	**1**	16	13	2	17	19	10

	T	'			N		T					T
4	1		12		20	3	1		2	25	8	1

					N			T					
25	8	11	11	7	20	12		1	3		19	3	16	.

	T	'						T				
4	1		12		2	25	8	1		19	3	16

D					T						T
15	3		2	4	1	25		2	25	8	1

					N			T					
25	8	11	11	7	20	12		1	3		19	3	16	.

NAME:

CLASS:

DATE:

Crossword: Host Continents

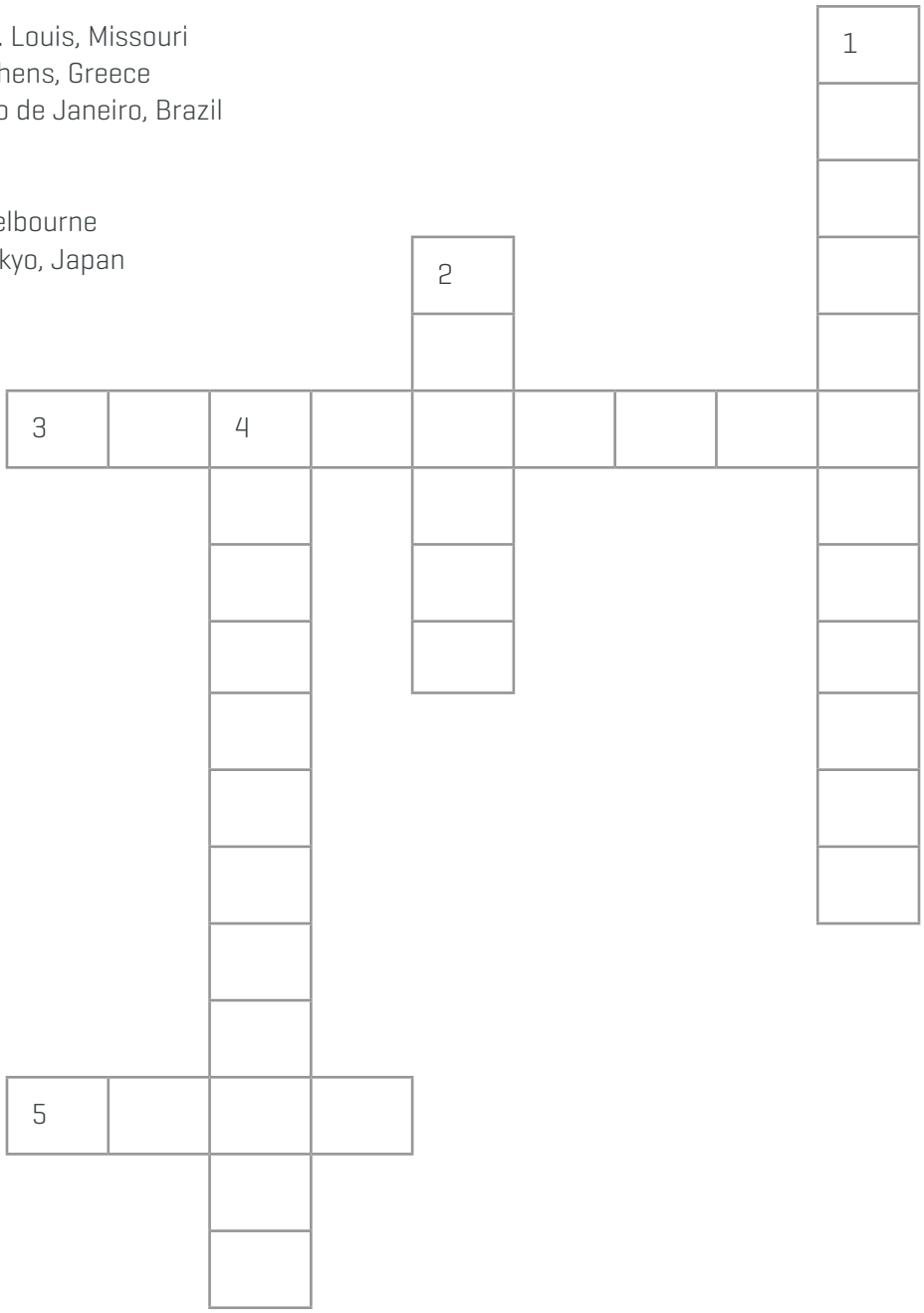
The clues in this crossword puzzle are the year and place the Olympics were held on a continent for the first time. So far, Africa is the only populated continent that has not hosted the Olympics or Paralympics. Identify the name of the continent for each clue to fill in the puzzle.

Down

1. 1904, St. Louis, Missouri
2. 1896, Athens, Greece
4. 2016, Rio de Janeiro, Brazil

Across

3. 1956, Melbourne
5. 1964, Tokyo, Japan



NAME:

CLASS:

DATE:

Word Search: Olympic & Paralympic Values

Every two years the Olympic and Paralympic Games give the world a much-needed reminder of the values and ideals that unite us all.

Find each of these 7 core values in the word search below. **BONUS!** Identify each value as either supporting the Olympic or Paralympic Games.

N	A	I	T	R	O	I	T	P	E	I	N	Z	R
P	O	E	E	X	P	F	C	C	J	Z	O	D	E
L	M	I	F	R	I	E	N	D	S	H	I	P	S
X	O	C	T	M	Z	E	J	C	Q	W	T	U	P
G	J	I	M	A	L	E	O	E	U	Y	A	T	E
B	E	Z	A	L	N	U	C	A	P	A	R	T	C
V	T	Q	E	N	R	I	I	J	G	E	I	H	T
X	I	C	U	A	R	V	M	Z	Z	G	P	S	O
P	X	U	G	A	M	X	Q	R	J	U	S	D	V
E	G	E	Y	E	L	P	E	D	E	T	N	N	P
L	B	J	L	W	R	I	B	W	N	T	I	E	L
H	C	Y	D	G	U	P	T	I	J	L	E	W	E
M	L	N	A	I	F	L	W	Y	E	R	F	D	G

COURAGE _____

DETERMINATION _____

EQUALITY _____

EXCELLENCE _____

FRIENDSHIP _____

INSPIRATION _____

RESPECT _____

Cryptogram, Crossword, and Word Search

TEACHER ANSWER KEY

Cryptogram

"It's not what happens to you. It's what you do with what happens to you."

Crossword

Down: 1. North America 2. Europe 4. South America; Across: 3. Australia 5. Asia

Word Search

N	A	I	T	R	O	I	T	P	**E**	I	**N**	Z	**R**
P	**O**	E	E	X	P	F	C	**C**	J	Z	**O**	D	**E**
L	M	**I**	**F**	**R**	**I**	**E**	**N**	**D**	**S**	**H**	**I**	**P**	**S**
X	O	C	**T**	M	Z	**E**	J	**C**	Q	W	**T**	U	**P**
G	J	I	M	**A**	**L**	E	**O**	E	U	Y	**A**	T	**E**
B	**E**	Z	A	**L**	**N**	**U**	C	A	P	A	**R**	T	**C**
V	T	**Q**	**E**	N	**R**	**I**	I	J	G	E	**I**	H	**T**
X	I	**C**	**U**	**A**	R	V	**M**	Z	Z	G	**P**	S	O
P	**X**	U	**G**	**A**	M	X	Q	**R**	J	U	**S**	D	V
E	G	**E**	Y	E	**L**	P	E	D	**E**	T	**N**	N	P
L	B	J	L	W	R	**I**	B	W	N	**T**	**I**	E	L
H	C	Y	D	G	U	P	**T**	I	J	L	**E**	W	E
M	L	N	A	I	F	L	W	**Y**	E	R	F	**D**	G

COURAGE Paralympics
DETERMINATION Paralympics
EQUALITY Paralympics
EXCELLENCE Olympics
FRIENDSHIP Olympics
INSPIRATION Paralympics
RESPECT Olympics

United States
Olympic
& Paralympic
Museum

BEYOND THE MEDAL

Curriculum Correlations

Beyond the Medal: Curriculum Standards

We know how important it is for you to justify field trips and document how instructional time is spent outside of your classroom. With this in mind, the activities in this Teacher's Guide and the experiences your students have during their field trip to the United States Olympic & Paralympic Museum are correlated to the Next Generation Science Standards, Common Core State Standards for English Language Arts, Common Core State Standards for Mathematics, C3 Framework for State Social Studies Standards, National Core Arts Standards, and National Health Education Standards. These connections are arranged by content area and grade level. The grade level expectations and evidence outcomes for the Colorado Academic Standards follow the national curricula.

NATIONAL CURRICULUM CORRELATIONS

Next Generation Science Standards

- Grade 3: 3-ESS2-2, 3-ESS3-1
- Grade 4: 4-ESS3-1, 4-ESS3-2
- Grade 5: 5-ESS3-1
- Grades 3-5: 3-5-ETS1-1, 3-5-ETS1-2

Common Core State Standards for English Language Arts

- Grade 3: CCSS.ELA-LITERACY.RI.3.3, CCSS.ELA-LITERACY.RI.3.4, CCSS.ELA-LITERACY.RI.3.7, CCSS.ELA-LITERACY.W.3.2, CCSS.ELA-LITERACY.W.3.7, CCSS.ELA-LITERACY.W.3.8
- Grade 4: CCSS.ELA-LITERACY.RI.4.3, CCSS.ELA-LITERACY.RI.4.4, CCSS.ELA-LITERACY.RI.4.7, CCSS.ELA-LITERACY.W.4.2, CCSS.ELA-LITERACY.W.4.7, CCSS.ELA-LITERACY.W.4.8
- Grade 5: CCSS.ELA-LITERACY.RI.5.3, CCSS.ELA-LITERACY.RI.5.4, CCSS.ELA-LITERACY.RI.5.7, CCSS.ELA-LITERACY.W.5.2, CCSS.ELA-LITERACY.W.5.7, CCSS.ELA-LITERACY.W.5.8

Common Core State Standards for Mathematics

- Grade 3: CCSS.MATH.CONTENT.3.NF.A.1, CCSS.MATH.CONTENT.3.MD.A.1, CCSS.MATH.CONTENT.3.MD.B.3, CCSS.MATH.CONTENT.3.MD.B.4, CCSS.MATH.CONTENT.3.MD.C.5, CCSS.MATH.CONTENT.3.MD.C.7
- Grade 4: CCSS.MATH.CONTENT.4.NF.C.7, CCSS.MATH.CONTENT.4.MD.A.2, CCSS.MATH.CONTENT.4.MD.A.3
- Grade 5: CCSS.MATH.CONTENT.5.MD.A.1

C3 Framework for State Social Studies Standards: D2.Geo.2.3-5, D2.Geo.3.3-5, D2.Geo.5.3-5

National Core Arts Standards: Visual Arts

- Grade 3: VA:Cr1.1.3a, VA:Cr1.2.3a
- Grade 4: VA:Cr1.1.4a, VA:Cr1.2.4a
- Grade 5: VA:Cr1.1.5a, VA:Cr1.2.5a

National Health Education Standards: 1.5.1, 2.5.2, 2.5.6, 5.5.1, 5.5.3, 5.5.6, 6.5.1

COLORADO ACADEMIC STANDARDS
Grade Level Expectations & Evidence Outcomes

Science
- Grade 3: 3.1.b, 3.2.a
- Grade 4: 3.4.a, 3.5.a
- Grade 5: 3.5.a

Reading, Writing, and Communicating
- Grade 3: 2.4.2, 3.7.2, 4.10.1
- Grade 4: 2.4.2, 3.7.2, 4.10.1
- Grade 5: 2.4.2, 3.7.2, 4.10.1

Mathematics
- Grade 3: 1.3.NF.A.a, 3.3.MD.A.a, 3.3.MD.B, 3.3.MD.C.a, 3.3.MD.C.c
- Grade 4: 1.4.NF.C.c, 3.4.MD.A.b, 3.4.MD.A.c
- Grade 5: 3.5.MD.A.a

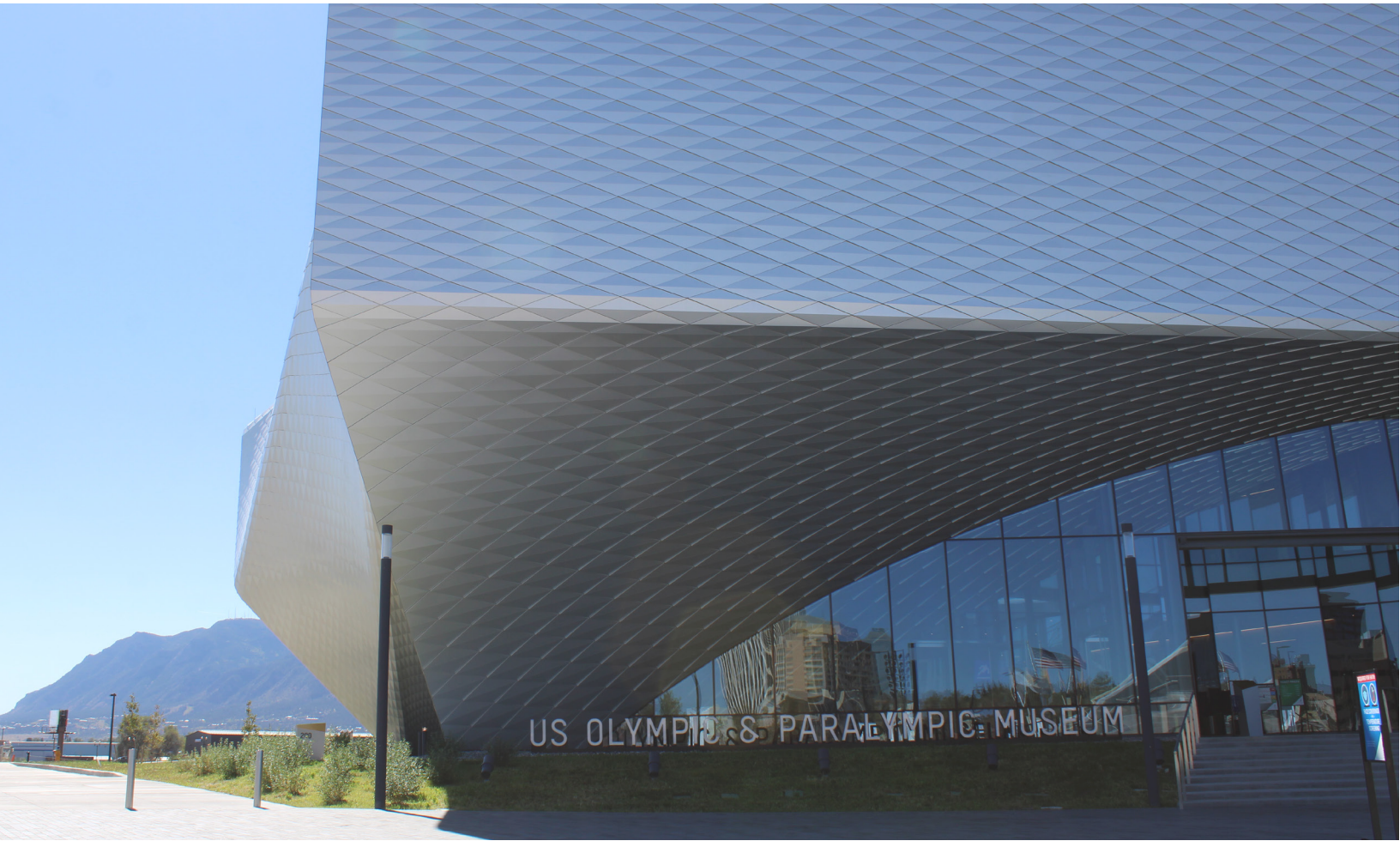
Social Studies
- Grade 3: 2.1.a, 2.1.d, 2.2.b
- Grade 4: 2.1.c, 2.2.a
- Grade 5: 2.1.a

Visual Arts
- Grade 3: 2.1.b, 2.2.a, 4.1.a
- Grade 4: 2.2.a, 3.1.a, 3.1.b, 4.1.a
- Grade 5: 1.1.b, 2.2.b, 3.1.b, 3.2.d

Comprehensive Health
- Grade 3: 4.1.c
- Grade 4: 2.2.a, 4.1.c
- Grade 5: 4.1.b

Physical Education
- Grade 3: 1.3.b, 2.1.b, 3.1.a
- Grade 4: 1.2.b, 2.2.a, 3.1.b
- Grade 5: 1.2.b

United States
Olympic
& Paralympic
Museum



United States
Olympic
& Paralympic
Museum